indicated above and is addressed to the Commissioner fo Patents, Washington, D.C. 20231 Shaylor E Dunn

Maywaw

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Mehrotra et al.

Group Art Unit:

Not Assigned

Serial No.: Not Assigned

Examiner:

Not Assigned

Docket No.: 297/144/2

Filed: Herewith

For: METHODS AND SYSTEMS FOR FAST PACKET FORWARDING

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents Washington, D.C. 20231

Sir:

In accordance with 37 C.F.R. 1.56, 1.97, and 1.98, applicants' undersigned attorney brings to the attention of the Patent and Trademark Office the following references. Copies of the references as well as Forms PTO/SB/08A and PTO/SB/08B are attached hereto. This is not to be construed as a representation that a search has been made or that a reference is relevant merely because cited.

- U.S. Patent No. 6,243,720 to Munter et al. discloses an address translation method and system having a forwarding table data structure.
- U.S. Patent No. 6,237,061 to Srinivasan et al. discloses a method for longest prefix matching in a content addressable memory.
- U.S. Patent No. 6,223,172 to Hunter et al. discloses address routing using address-sensitive mask decimation scheme.
- U.S. Patent No. 6,216,168 to Dev et al. discloses perspective-based shared scope address resolution method and apparatus.
- U.S. Patent No. 6,212,184 to Venkatachary et al. discloses fast scaleable methods and devices for layer four switching.

- U.S. Patent No. 6,212,183 to <u>Wilford</u> discloses a multiple parallel packet routing lookup.
- U.S. Patent No. 6,192,051 to <u>Lipman et al.</u> discloses a network router search engine using compressed tree forwarding table.
- U.S. Patent No. 6,181,698 to <u>Hariguchi</u> discloses a network routing table using content addressable memory.
- U.S. Patent No. 6,173,384 to <u>Weaver</u> discloses a method of searching for a data element in a data structure.
- U.S. Patent No. 6,157,955 to <u>Narad et al.</u> discloses a packet processing system including a policy engine having a classification unit.
- U.S. Patent No. 6,154,446 to <u>Kadambi et al.</u> discloses a network switching architecture utilizing cell based and packet based per class-of-service head-of-line blocking prevention.
- U.S. Patent No. 6,147,976 to <u>Shand et al.</u> discloses a fast network layer packet filter.
- U.S. Patent No. 6,141,738 to <u>Munter et al.</u> discloses an address translation method and system having a forwarding table data structure.
- U.S. Patent No. 6,128,664 to <u>Yanagidate et al.</u> discloses an address-translating connection device.
 - U.S. Patent No. 6,119,171 to Alkhatib discloses domain name routing.
- U.S. Patent No. 6,081,440 to <u>Washburn et al.</u> discloses ternary content addressable memory (CAM) having east insertion and deletion of data values.
- U.S. Patent No. 6,058,431 to <u>Srisuresh et al.</u> discloses a system and method for network address translation as an external service in the access server of a service provider.
- . U.S. Patent No. 6,052,683 to <u>Irwin</u> discloses address lookup in packet data communication networks.
- U.S. Patent No. 6,018,524 to <u>Turner et al.</u> discloses scalable high speed IP routing lookups.

- U.S. Patent No. 6,011,795 to <u>Varghese et al.</u> discloses a method and apparatus for fast hierarchical address lookup using controlled expansion of prefixes.
- U.S. Patent No. 5,991,299 to <u>Radogna et al.</u> discloses high speed header translation processing.
- U.S. Patent No. 5,983,223 to <u>Perlman</u> discloses a method and apparatus for determining a longest matching prefix from a dictionary of prefixes.
- U.S. Patent No. 5,920,886 to <u>Feldmeier</u> discloses accelerated hierarchical address filtering and translation using binary and ternary cams.
- U.S. Patent No. 5,787,430 to <u>Doeringer et al.</u> discloses variable length data sequence backtracking a trie structure.
- U.S. Patent No. 5,598,410 to <u>Stone</u> discloses a method and apparatus for accelerated packet processing.
- U.S. Patent No. 5,566,170 to <u>Bakke et al.</u> discloses a method and apparatus for accelerated packet forwarding.

Publication by <u>Lampson et al.</u> entitled "IP Lookups Using Multiway and Multicolumn Search," <u>IEEE</u>, pp. 1248-1256, (1998).

Publication by <u>Waldvogel et al.</u> entitled "Scalable High Speed IP Routing Lookups," <u>ACM</u>, pp. 25-36, (1997).

Publication by <u>Degermark et al.</u> entitled "Small Forwarding Tables for Fast Routing Lookups," <u>ACM</u>, pp. 3-14, (1997).

Early passage of the subject application to issue is earnestly solicited.

Although it is believed that no fee is due, the Commissioner is hereby authorized to charge any deficiencies of payment associated with the filing of this Information Disclosure Statement to Deposit Account No. 50-0426.

Respectfully submitted,

JENKINS & WILSON, P.A.

Date: Oct 18 200

By:

Gregory A. Hunt Registration No. 41,085

Suite 1400 University Tower 3100 Tower Boulevard Durham, North Carolina 27707 Telephone: (919) 493-8000

Telephone: Facsimile:

(919) 493-8000 (919) 419-0383

297/144/2 GAH/anw

25297

Enclosures

				١.,	
Please type a	ı plus sign	(+) inside	thi)→	+
			_	1	

PTO/SB/08A (10-96)

pproved for use through 10/31/99. OMB 0651-0031

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet of

C	omplete if Known)
Application Number	Not Assigned	
Filing Date	Herewith	6 0
First Named Inventor	Pronita Mehrotra	o Lin
Group Art Unit	Not Assigned	200
Examiner Name	Not Assigned	S.C.
Attorney Docket Number	297/144/2	

				U.S. PATENT DOC	UMENTS	
Examiner Initials	Cite No.1	U.S. Patent I	Cocument Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A	6,243,720		Munter et al.	06/05/2001	
	В	6,237,061		Srinivasan et al.	05/22/2001	
	С	6,223,172		Hunter et al.	04/24/2001	
	D	6,216,168		Dev et al.	04/10/2001	
	Ε	6,212,184		Venkatachary et al.	04/03/2001	
	F	6,212,183		Wilford	04/03/2001	
	G	6,192,051		Lipman et al.	02/20/2001	
	Η	6,181,698		Hariguchi	01/30/2001	
	I	6,173,384		Weaver	01/09/2001	
	J	6,157,955		Narad et al.	12/05/2000	
	K	6,154,446		Kadambi et al.	11/28/2000	
	L	6,147,976		Shand et al.	11/14/2000	
	M	6,141,738		Munter et al.	10/31/2000	
	N_	6,128,664		Yanagidate et al.	10/03/2000	
	0	6,119,171		Alkhatib	09/12/2000	
	P	6,081,440		Washburn et al.	06/27/2000	
	Q	6,058,431		Srisuresh et al.	05/02/2000	
	R	6,052,683		Irwin	04/18/2000	
	S	6,018,524		Turner et al.	01/25/2000	
	T	6,011,795		Varghese et al.	01/04/2000	

	FOREIGN PATENT DOCUMENTS											
ina	Cita		Foreign Patent Do	cument	Name of Patentee or	Date of Publication of	Pages, Columns, Lines, Where Relevant					
Examiner Initials	Cite No. ¹	Office ³	Number ⁴	Kind Code ⁵ (if known)	Applicant of Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear	T6				
							•					
		ll					_					

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Skind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Please	tvpe	а	plus	sign	(+)	inside	th
1 10030	type	a	pius	Sign	۲.)	1113100	

PTO/SB/08A (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2 of 2

Complete if Known					
Application Number	Not Assigned				
Filing Date	Herwith				
First Named Inventor	Pronita Mehrotra				
Group Art Unit	Not Assigned	_			
Examiner Name	Not Assigned				
Attorney Docket Number	297/144/2				

	U.S. PATENT DOCUMENTS								
Examiner Initials	Cite No.1	U.S. Patent I	Cocument Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear			
	U	5,991,299		Radogna et al.	11/23/1999				
	V	5,983,223		Perlman	11/09/1999				
	W	5,920,886		Feldmeier	07/06/1999				
	X	5,787,430		Doeringer et al.	07/28/1998				
	Y	5,598,410		Stone	01/28/1997				
	Z	5,566,170		Bakke et al.	10/15/1996				
						-			
		1				-			

	FOREIGN PATENT DOCUMENTS											
Examiner	Cite		Foreign Patent Do		Name of Patentee or	Date of Publication of	Pages, Columns, Lines, Where Relevant					
Initials*	No.1	Office ³ Number ⁴ (if known)		Applicant of Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear	Τ ⁶					
								\bot				
							_					

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

• Please type a plus sign (+) inside box →	+
 Please type a plus sign (+) inside box → 	+

PTO/SB/08B (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO		Complete if Known			
			Not Assigned	co	
INFORMATION DISCLOSURE			Filing Date	Herewith	010
STA	STATEMENT BY APPLICANT		First Named Inventor	Pronita Mehrotra	a Lab
0.7	((E.V.E.(() D.	/ (LI LI LI C / (I C)	Group Art Unit	Not Assigned	∞.00
	(use as many shee	ts as necessary)	Examiner Name	Not Assigned	207
Sheet	1 of	1	Attorney Docket Number	297/144/2	SO.
-				•	-4 E

OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²			
		LAMPSON ET AL., "IP Lookups Using Multiway and Multicolumn Search," IEEE, p. 1248-1256, (1998).	X			
	В	WALDVOGEL ET AL., "Scalable High Speed IP Routing Lookups," ACM, p. 25-36, (1997).	Х			
	С	DEGERMARK ET AL., "Small Forwarding Tables for Fast Routing Lookups," ACM, p. 3-14, (1997).	X			
Examine		Date Considered				

Examiner	Date	
Signature	Considered	

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.



^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.